

Appln. No. 09/905,716

Amendment Date: October 28, 2005

Reply to Office Action of June 28, 2005

Page 2

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A receiver for receiving and Efficiently separating a composite 3-G wireless communications signal into [its] constituent base-band components, wherein said receiver combines multiple processing tasks of a [conventional] 3-G receiver into a single [entity] device, said single [entity] performs the processing required for multiple channels [in a single device], comprising,

a resampling polyphase filter bank [wherein] for performing tasks of spectral translation, bandwidth reduction and of interpolation to change sample rate by a rational ratio [are embedded], and

a single polyphase filter coupled to operate[s] in a resampling mode so that the sample rate input and the sample rate output [sample rates] are different.

3 (Currently Amended) A receiver for receiving and
Efficiently separating a composite 3-G wireless communications
signal into [its] constituent base-band components, wherein said
receiver combines multiple processing tasks of a [conventional]
3-G receiver into a single [entity] device, said single [entity]
device performs the processing required for multiple channels[in
a single device], comprising,

a filter for changing [the] a sample rate therewithin to
induce spectral aliasing of multiple spectral centers, and
[wherein]

a resampling mode for intentional aliasing [is invoked as a
replacement for the input down conversion of each channel in a
conventional receiver structure].

4. (canceled).

5. (canceled)